Magdalene Lampert 10815 Boyce Road Chelsea, MI 48118 (734) 475-0889

# **EDUCATION**

Ed.D. Teaching, Curriculum, and Learning Environments. Harvard University, Cambridge, MA, 1981.

Dissertation: How Teachers Manage to Teach: Perspectives on the Unsolvable Dilemmas in Teaching Practice

- M.Ed. Elementary Education and Child Development. Antioch New England Graduate School of Education, Keene, NH, 1973
- M.Ed. Secondary Curriculum and Instruction in Mathematics. Temple University, Philadelphia, PA, 1971
- B.S. Mathematics. Chestnut Hill College, Philadelphia, PA, 1969 (cum laude)

## PROFESSIONAL EXPERIENCE

## UNIVERSITY POSITIONS

2006-present	George Herbert Mead Collegiate Professor in Education
1993 - present	Professor
	School of Education
	University of Michigan, Ann Arbor, MI

Winter, 1998 F.C. Donders Professor of Mathematics and Informatics

University of Utrecht Utrecht, The Netherlands

1992 - 1993 Professor 1986 - 1992 Associate Professor 1984 - 1986 Assistant Professor College of Education

Michigan State University, East Lansing, MI

# RESEARCH AFFILIATIONS

2002-present Research Associate

Center for Proficiency in Teaching Mathematics

University of Michigan, Ann Arbor, MI

2001-present Principal Investigator

Learning in Teaching to Improve Practice Project

University of Michigan, Ann Arbor, MI

1996-1999 Principal Investigator Teacher Development through Video Project University of Michigan, Ann Arbor, MI Winter, 1998 Visiting Scholar The Freudenthal Institute Utrecht, The Netherlands 1989-1996 Co-Principal Investigator Mathematics and Teaching Through Hypermedia Project University of Michigan, Ann Arbor, MI Michigan State University, East Lansing, MI Senior Researcher 1984 - 1993 Institute for Research on Teaching Michigan State University, East Lansing, MI Winter, 1992 Visiting Scholar Institute for Research on Learning Palo Alto, CA 1986 - 1988 Research Co-Director, Lab Sites Project **Educational Technology Center** Harvard Graduate School of Education, Cambridge, MA Visiting Scholar, Department of Curriculum Studies Winter, 1988 New South Wales State Department of Education Sydney, Australia Research Associate 1978 - 1980 Division for Study and Research in Education Massachusetts Institute of Technology, Cambridge, MA TEACHER EDUCATION Coordinator of the Design and Development of School and University 2006-present Settings for Teacher Education University of Michigan, Ann Arbor, MI 1998-1999 Senior Advisor National Board for Professional Teaching Standards 1989 - 1996 Co-Director Mathematics and Teaching Through Hypermedia Project University of Michigan, Ann Arbor, MI Michigan State University, East Lansing, MI Mathematics Curriculum Coordinator, Grades 4-6 1982 - 1984 Buckingham, Browne & Nichols, Lower School, Cambridge, MA 1983 - 1984 Adjunct Professor of Teacher Education Lesley College, Cambridge, MA 1981 - 1982 Assistant Professor of Education

Wheelock College, Boston, MA

1973 - 1977 Member of the Faculty of Education

Antioch Graduate School, Keene, NH

1975 - 1976 Candidate Sponsor/Tutor, Child Development Program

University of New Hampshire, Durham, NH

CLASSROOM TEACHING

Primary

1984 - 1990 Mathematics Teacher, Grades 4 - 5

Spartan Village School, East Lansing, MI

1982 - 1984 Mathematics Teacher, Grades 4 - 6

Buckingham Browne & Nichols, Lower School, Cambridge, MA

1973 - 1975 Consulting Teacher, Nursery - Grade 1

The Harrisville School, Harrisville, NH

CLASSROOM TEACHING

Secondary

1970 - 1972 Teacher of Mathematics and Humanities

Holy Spirit High School, Absecon, NJ

1969 - 1970 Teacher of Mathematics

A.D. Eisenhower High School, Norristown, PA

Adult Education

1977 - 1978 Assistant Director, Education Division

Massachusetts Advocacy Center, Boston, MA

TEACHING CERTIFICATES

Teacher of Mathematics, Secondary Level

Elementary Teacher, K-8

TELEVISION AND SOFTWARE DESIGN CONSULTING

1984 - 1994 <u>Square One TV</u>

Children's Television Workshop, New York, NY

Adviser on mathematical content, classroom use, and teacher

resource materials

1983 - 1990 The Voyage of the Mimi

Bank Street Project in Science, Mathematics and Technology,

New York, NY

Author of print materials for teachers and students Adviser on software design and video content in

mathematics.

## MAJOR FELLOWSHIPS, GRANTS, AND HONORS

Granted \$46,716 (2006) by the Spencer Foundation to study Learning In, From, and For Practice in Relational Professions.

Granted \$ 185,434 by the John S. & Cynthia Reed Foundation (2004) to continue the study of Learning in Teaching to Improve Practice: Individual Challenges and Organizational Resources.

Awarded the Exemplary Research in Teaching and Teacher Education Award from Division K of the American Educational Research Association, 2002.

Granted \$205,603 by the John S. & Cynthia Reed Foundation (2001) to study Learning in Teaching to Improve Practice: Individual Challenges and Organizational Resources.

Granted \$57,500 by the John S. & Cynthia Reed Foundation (2000) to study the implications of organizational learning research for teacher development.

Awarded Computerworld Smithsonian Laureate Medal for "Visionary Use of Information Technology in Education Academia," April 1999.

Granted \$80,000 by the National Science Foundation (1998) to conduct a workshop on new technologies and the study of teaching.

Elected to the Board of Directors, National Academy of Education, September 1997.

Granted \$150, 000 over a three-year period (1996-99) by the MacArthur Foundation to study the use of video in teacher development.

Elected to the National Academy of Education, September 1994.

Elected to the Board of Directors of the Spencer Foundation, October, 1994, reelected, January 2000.

Granted \$1.5 million over a three year period (1992-95) by the National Science Foundation, to study Communication in and About School Mathematics (Deborah Ball, Co-PI).

Granted \$1.3 million over a three year period (1989-92) by the National Science Foundation, to study Learning to Teach Mathematics for Understanding: Multimedia Case-Based Elementary Teacher Preparation (Deborah Ball, Co-PI).

Granted \$345, 000 over a three year period (1989-92) by the Spencer Foundation to study the Practices of Teaching and Learning Authentic Mathematics for Understanding in School.

Awarded Raymond B. Cattell Early Career Award for Programmatic Research by the American Educational Research Association, 1991.

Elected to the Board of Visitors, Learning Research and Development Center, University of Pittsburgh, September, 1989.

Awarded Interpretive Scholarship Award for Relating Research to Practice by the American Educational Research Association, 1987.

Awarded Spencer Post-Doctoral Fellowship by the National Academy of Education to study Mathematics Teaching and Learning in The School Context (1986-1988).

Awarded Distinction, qualifying paper, Harvard University, 1979.

Awarded Distinction, comprehensive examinations, Temple University, 1971.

Awarded Honorable Mention, Woodrow Wilson Fellowship, 1969.

Awarded Honorable Mention, Danforth Fellowship, 1969.

Awarded Walsh Medal in Philosophy, Chestnut Hill College, 1969.

### **PUBLICATIONS**

### BOOKS, ARTICLES AND BOOK CHAPTERS

- Lampert, M. (2004). When the problem is not the question and the solution is not the answer: Mathematical knowing and teaching. In <u>Classics in Mathematics Education Research</u>, edited by T.P. Carpenter, J.A. Dossey, and J.L. Koehler (Reston, VA: National Council of Teachers of Mathematics, 2004). [Originally appeared in <u>American Educational Research Journal</u>, <u>27</u>, 1, pp. 29-64
- Lampert, M. & Cobb, P. (2003) Communication and learning in the mathematics classroom. In J. Kilpatrick & D. Shifter, Eds. <u>Research Companion to the NCTM Standards</u>. Reston, VA: National Council of Teachers of Mathematics, pp. 237-249.
- Lampert, M. (2002) Appreciating the complexity of teaching and learning in school. In Anna Sfaard and Kay McClain, Eds. <u>Analyzing Tools: Perspectives on the Role of Designed Artifacts in Mathematics Learning</u>. Special Issue, <u>Journal of the Learning Sciences</u>, <u>11</u> (2-3), 365-369.
- Lampert, M. (2001) <u>Teaching Problems and the Problems in Teaching</u>. New Haven, CT: Yale University Press.
- Lampert, M. (2000) Knowing teaching: The intersection of research on teaching and qualitative research. <u>Harvard Educational Review</u>, 70 (1), 86-99. (Also published in B. Brizuela, J.P. Stewart, R.G. Carillo, and J.G. Berger (Eds.) <u>Acts of Inquiry in Qualitative Research</u>. Cambridge, MA: Harvard Educational Review, 2000.)
- Ball, D.B.& Lampert, M. (1999) Multiples of evidence, time, perspective: Revising the study of teaching and learning. In E.C. Lagemann & L.S. Shulman (Eds.) <u>Issues in Education</u> <u>Research: Problems and Possibilities</u>. NY: Jossey-Bass, pp. 371-398.
- Lampert, M. & Ball, D. (1999). Aligning teacher education with contemporary K-12 reform visions. In L. Darling-Hammond and Gary Sykes, eds., <u>Teaching as the Learning Profession: Handbook of Teaching and Policy</u>. NY: Jossey-Bass.
- Lampert, M. (1999) Knowing teaching from the inside out: Implications of inquiry in practice for teacher education. In Gary A. Griffin (Ed.), <u>On Teacher Education: 1999 Yearbook</u>. Chicago, Ill.: National Society For The Study Of Education.
- Lampert, M. (1998). Studying teaching as a thinking practice. In J. Greeno and S.G. Goldman (Eds.) <u>Thinking Practices</u>. Hillsdale, NJ: Lawrence Erlbaum and Associates.
- Lampert, M. & Ball, D. (1998) <u>Teaching</u>, <u>Multimedia and Mathematics</u>: <u>Investigations of Real Practice</u>. NY: Teacher's College Press.
- Lampert, M. & Blunk, M., Eds. (1998) <u>Talking Mathematics: Studies of Teaching and Learning in School</u>. NY: Cambridge University Press.

- Lampert, M. (1998). Why study mathematical talk and school learning? In Lampert, M. & Blunk, M., (Eds.), <u>Talking Mathematics: Studies of Teaching and Learning in School</u>. NY: Cambridge University Press.
- Lampert, M. (1998). Mathematical talk: What is there to teach and how might it be learned? In Lampert, M. & Blunk, M., (Eds.), <u>Talking Mathematics: Studies of Teaching and Learning in School</u>. NY: Cambridge University Press.
- Lampert, M. (1997). Understanding and managing classroom dilemmas in the service of good teaching. In Nicholas Burbules and David T. Hansen, eds., <u>Teaching and Its Predicaments</u>, Westview Press, pp. 145-162.
- Lampert, M. (1997). Teaching About thinking and thinking about teaching, *revisited*. In Virginia Richardson, ed., <u>Constructivist Teacher Education</u>. London: Falmer Press, pp. 84-107.
- Lampert, M.; Rittenhouse, P. & Crumbaugh, C. (1996) Agreeing to disagree: Developing sociable mathematical discourse. In Olson, D. & Torrance, N. (Eds.) <u>Handbook of Education and Human Development</u>. Oxford, Blackwell's Press, pp. 731-764.
- Lampert, M. (1994) Teaching that connects students' inquiry with curricular agendas in schools. In D. N. Perkins, J. L. Schwartz, M. M. West and M. S. Wiske, (Eds.). <u>Software Goes to School Teaching for Understanding with New Technologies</u> (pp. 213-232). NY: Oxford University Press.
- Lampert, M. (1994) Why use interactive media in teacher preparation? <u>Innovator</u>, Volume 25 (1).
- Lampert, M., Heaton, R., & Ball, D. (1994) Using technology to support a new pedagogy of mathematics education, <u>Journal of Special Education Technology</u> (special issue on technology and teaching), Volume 12 (3).
- Heaton, R. & Lampert, M. (1993) Learning to hear voices: Inventing a new pedagogy of teacher education. In M. McLaughlin, J. Talbert, & D. Cohen (Eds.), <u>Teaching for Understanding:</u> <u>Challenges for Practice, Research and Policy</u>. NY: Jossey-Bass.
- Lampert, M. (1993) Teachers' thinking about students' thinking about geometry. In J.L. Schwartz, M. Yerushalmy, & B. Wilson (Eds.), What is this a case of? A "Geometric Supposer" Reader. Hillsdale, N.J.: Erlbaum.
- Lampert, M. (1992). Practices and problems in teaching authentic mathematics in school. In F. Oser; A.Dick, & J.-L. Patry (Eds.), <u>Effective and Responsible Teaching: The New Synthesis</u>. NY: Jossey-Bass, pp. 295-314.
- Lampert, M. (1992). Teaching and learning long division for understanding in school. In Leinhardt, G., Putnam, R., & Hattrup, R. (Eds.), <u>Disseminating new knowledge about mathematics instruction</u>. Hillsdale, N.J.: Erlbaum.
- Lampert, M. (1991) Looking at restructuring from within a restructured role. Phi Delta Kappan, May 1991, pp. 670-674.
- Lampert, M. (1991). Connecting mathematical teaching and learning. In E. Fennema, T.P. Carpenter, & S. J. Lamon (Eds.), <u>Integrating research on teaching and learning mathematics</u> (pp. 121-152). Albany, NY: State University of New York Press.
- Lampert, M. & Clark, C. (1990). Expert knowledge and expert thinking in teaching: A reply to Floden and Klinzig. <u>Educational Researcher</u>, 19(4), 21-23, 42.

- Putnam, R., Lampert, M., & Peterson, P. (1990) Alternative perspectives on knowing mathematics in elementary schools. In C. Cazden, (Ed.), <u>Review of Research in Education</u>, Vol. 16 (pp. 57-150). Washington, D.C.: American Educational Research Association.
- Lampert, M. (1990). When the problem is not the question and the solution is not the answer: Mathematical knowing and teaching. <a href="Mathematical knowing"><u>American Educational Research Journal</u></a>, <a href="Mathematical knowing">27(1)</a>, 29-64. (Translated into Japanese and published as "Creating authentic learning" in <a href="Learning as a Cultural Practice"><u>Cultural Practice</u></a>, edited by Manabu Sato and Yutaka Sayeki, University of Tokyo Press, 1995. Also published in <a href="Proceedings"><u>Proceedings</u></a>, Tenth Annual Meeting of the North American Chapter of Psychology of Mathematics Education, 1988.)
- Lampert, M. (1990). Connecting inventions with conventions: The teachers' role in classroom communication about mathematics. In L. Steffe and T. Wood (Eds.) <u>Transforming Early Childhood Mathematics Education</u>, (pp. 253-265). Hillsdale, NJ: Erlbaum.
- Lampert, M. (1989). Research into practice: Arithmetic as problem solving. <u>Arithmetic Teacher</u>, <u>36</u> (7), 34-36.
- Lampert, M. (1989). Choosing and using mathematical tools in classroom discourse. In J. Brophy, (Ed.), <u>Advances in Research on Teaching.</u> Vol. 1, (pp. 223-264). Greenwich, CT: JAI Press.
- Lampert, M. (1988). What can research on teacher education tell us about improving the quality of mathematics education? <u>Teaching and Teacher Education</u>: <u>An International Journal of Research and Studies</u>, <u>3</u>(4), 157-170.
- Lampert, M. (1988). Comparing fractions: Using missing pieces. <u>Elementary Mathematician</u>, <u>2</u>(1), 11-12.
- Lampert, M. (1987). Mathematics teaching in schools: Imagining an ideal that is also possible. In Mathematical Sciences Education Board, <u>The teacher of mathematics: Issues for today and tomorrow: Proceedings of a conference</u> (pp. 37-42). Washington, D.C.: National Research Council.
- Lampert, M. (1986). Knowing, doing, and teaching multiplication. <u>Cognition and instruction</u>, <u>3</u>, 305 342.
- Lampert, M. (1986). Teaching multiplication. The Journal of Mathematical Behavior, 5, 241-280.
- Clark, C., & Lampert M. (1986). The study of teacher thinking: Implications for teacher education. <u>Journal of Teacher Education</u>, <u>37</u> (5), 27-31. (Also published in M. Crahay and D. LaFontaine (Eds.), <u>L'Art et la Suevie de L'Enseignement</u> (pp. 185-200). Luxembourg, Belgium: Editions Labor.)
- Lampert, M. (1986). Teachers' strategies for understanding and managing classroom dilemmas. In M. Ben Peretz, R. Bromme, and R. Halkes (Eds.), <u>Advances of Research on Teacher Thinking</u> (pp. 70-83). Lisse: Svets and Zeitlinger.
- Lampert, M. (1985). Mathematics learning in context: "The Voyage of the Mimi". <u>The Journal of Mathematical Behavior</u>. <u>4</u>, 157-168
- Lampert, M. (1985). How do teachers manage to teach?: Perspectives on problems in practice. <u>Harvard Educational Review</u>, 55(2), 178-194. (Also published in <u>Schooling and Teaching: New Directions and New Challenges</u>, Cambridge, MA: Harvard Educational Review, 1986; in <u>Teachers, Teaching</u>, and <u>Teacher Education</u>, Cambridge, MA: Harvard Educational Review, (pp.106-123), 1987; and in <u>For Teachers about Teaching</u>, Cambridge, MA: Harvard Educational Review (pp.18-35), 1988.)

- Lampert, M. (1984). Teaching about thinking and thinking about teaching. <u>Journal of Curriculum Studies</u>, <u>16</u>(1), 1-18. (Also published in P. Taylor (Ed.), <u>Recent Developments in Curriculum Studies</u> (pp. 233-259). Windsor Berks, UK: NFER Nelson Publishing Co. Ltd., 1986.)
- Lampert, M. (1979). A review of <u>Play as Development</u>, A.L. Butler, et al., <u>Young Children</u>, <u>24</u>(3), 72.
- Lampert, M. (1978). Connecting words with real ideas. Young Children, 33(2), 20-25.

#### TEXTBOOK AND TEACHER'S GUIDE

Lampert, M. & Smallberg, R. (1990). <u>Maya Math</u>, Student Guide and Teacher's Guide. Scotts Valley, CA: Sunburst.

### REPORTS

- Lampert, M. & Graziani, F. (February 2005) <u>Making Ambitious Teaching Routine: Individual Challenges and Organizational Resources</u>, a report presented to the Directorate of Italiaidea Center for Italian Language and Culture Studies; Rome, Italy
- National Academy of Education, <u>Recommendations Regarding Research Priorities</u>, An Advisory Report Presented to the National Research Policy and Priorities Board, US Department of Education (March 1999) [chair of panel and author of section of report on Teacher Development and Professional Community]
- Lampert, M. & Hawkins, J. <u>Report to the National Science Foundation, New Technologies for the Study of Teaching Workshop</u>, June, 1998; Ann Arbor, Michigan
- Lampert, M. & Ball, D. (July 1990). <u>Using hypermedia technology to support a new pedagogy of teacher education</u>. National Center for Research on Teacher Education, Michigan State University.
- Putnam, R., Lampert, M., & Peterson, P. (March 1989). <u>Perspectives on understanding mathematics from psychology, mathematics, and research on teaching</u>. Research Report, Center for the Study of the Learning and Teaching of Elementary Subjects, Michigan State University.
- Lampert, M. (October 1988). <u>Teaching that connects students' inquiry with curricular agendas in schools</u>. Technical Report, Educational Technology Center, Harvard Graduate School of Education
- Lampert, M. (April 1988). <u>Reinterpreting mathematics: An experiment in teacher development</u>. Occasional Paper, National Center for Research in Teacher Education, Michigan State University.
- Lampert, M. (January 1987). <u>What is geometry</u>? Progress Report, Teacher Study, Lab Sites Project, Educational Technology Center, Harvard Graduate School of Education.
- Lampert, M. (February 1987). <u>How is geometry communicated to students</u>? Progress Report, Teacher Study, Lab Sites Project, Educational Technology Center, Harvard Graduate School of Education.
- Lampert, M. (November 1982). "Classroom observations," chapter in <u>Analysis of Data from an Experiment in Teacher Development</u>, Jeanne Bamberger and Eleanor Duckworth, Massachusetts Institute of Technology.

Bamberger, J., Duckworth, E. & Lampert, M. (March 1981). <u>Final report: An experiment in teacher development</u>. NIE Grant #G-78-0219, Massachusetts Institute of Technology

## RECENT INVITED AND REFERREED ADDRESSES

- "Learning Instructional Routines and Student-Oriented Professional Practices." TESOL (Teaching English to Speakers of other Languages)-Italy, Rome, Italy, September 22, 2005. (with Filippo Graziani)
- "Language and Teaching: What is there to teach?" A paper prepared for the conference "Teaching the Disciplines and the Discipline of Teaching: Celebrating 125 Years of the Art and Science of Teaching at the University of Michigan", Ann Arbor, MI, June 7, 2005
- "Preparing Teachers for Ambitious Instructional Practice: Learning to Listen and to Construct an Appropriate Response." For the Symposium "Unpacking Practice: The Pedagogies of Learning from Practice" at the annual meeting of the American Educational Research Association, Montreal, Canada April, 2005.
- "Material, Intellectual, and Organizational Supports for Ambitious Teaching." Paper presented at the Mathematics Education Colloquium Series, East Lansing, MI: Michigan State University, September 22, 2004.
- "Teaching Practice/ Teacher Learning Practice." Invited paper, Rockefeller Foundation Conference "Investigating the Practice of School Improvement: Theory, Methodology, and Relevance". Bellagio Study and Conference Center. Bellagio, Italy, August 10-15, 2004.
- "Learning To Construct Curriculum In Teaching: A New Take On "Methods" A talk in the Colloquium Series: "Preparing Teachers as Curriculum Practitioners," School of Education, University of Delaware, May 6, 2004.
- "Tools for Inserting, Maintaining, and Managing Complexity in Classroom Learning and Teaching", Invited paper, Members Forum, National Academy of Education Annual Meeting, Harvard Graduate School of Education, October 3, 2003.
- "Teaching Materials, School Organization, and Teacher Learning or What has learning Italian got to do with increasing proficiency in mathematics teaching?" The Center for Proficiency in Teaching Mathematics, Ann Arbor, MI, September 30, 2003.
- "Teaching Problems and Knowledge about Teaching," Invited Keynote Address, Jahrestagung der DGfE-Kommission Professionsforschung und Lehrerbildung zum Thema Wissen und pädagogisches Handeln. Neue theoretische Konzepte und empirische Zugänge (Annual Conference of the German Commission of professional Development and Learning on the Theme of Knowledge and Pedagogical Practice, New Theoretical Concepts and Empirical Findings) Johann Wolfgang Goethe-Universität, Frankfurt am Main, Germany, 20. Juni 2003
- "Learning and Teaching Complexity: What Role Might Video Play?" Symposium on Video Cases and Learning, American Educational Research Association, Chicago, April 22, 2003. (with Filippo Graziani)
- "Insegnamento dei suggetti complessi: Che fare e come apprendere nella prattica?" (Teaching of complex subjects: What is done and how is it learned in practice?) Faculty Seminar, Italiaidea, Rome, Italy, March 25, 2002.
- "Issues in the Representation of Teaching Practice: Difficulties and Opportunities in Multimedia Archives." Symposium (18.66) on Issues In The Representation Of Teaching Practice, American Educational Research Association, New Orleans, April 24, 2000

- "Overview of the 'Connect-the-Dots' Problem: Research on the relationships among teacher development, teaching practice, and student learning." Session 21.23: An AERA Consultation Session, American Educational Research Association, New Orleans, April 25, 2000
- "Problems and Issues in Using a Multimedia Archive of Records of Teaching Practice in Teacher Development" Board on International Comparative Studies in Education Symposium on New Technologies in Teacher Development, National Research Council, Washington, D.C., November 30, 1999.
- "Connecting Research on Teacher Learning with Research on Students Learning: Conceptual Problems and Three Promising Examples." National Academy of Education Annual Symposium Series, Pittsburgh, PA, October 15, 1999.
- "Representing the Relational Complexities of Practice in Teaching," Interdisciplinary Committee on Organizational Studies Colloquium, University of Michigan, October 8, 1999.
- "A New Frame for Doing Research on Teaching Practice from the Inside," Spencer Foundation Research Training Grant Conference on Mentoring Research on Practice, Michigan State University, September 27, 1999.
- "Inquiry in Practice: The Experience of a University Professor/Fifth Grade Mathematics Teacher" AERA Symposium on Teacher Education for the 21st Century: The 98th NSSE Yearbook, Montreal, April 19, 1999.
- "Studying Teaching From the Perspective of Practice," Keynote Address, Second Annual Conference of National Board Certified Teachers, Charlotte, North Carolina, October 20, 1998.
- "Using Multimedia Records of Practice in the Study of Teaching," Invitational International Symposium on Teacher Education, The Rockefeller Foundation, Bellagio, Italy, July 23, 1998.
- Breaking with Tradition in Educational Scholarship." Annual Retreat for Spencer Post-Doctoral Fellows, University of Colorado, Boulder, CO, September 25, 1998.
- "Learning Teaching." Plenary Address, Second International Conference on the Learning Sciences, Northwestern University, Evanston, Illinois, July 27, 1996
- "Understanding Mathematics in a Classroom: What is taught? By whom? To whom? By what means?" Second Annual Corvalis Public Education Lecture, Corvalis, Oregon, May 6, 1996
- "Why Hans Freudenthal and I Use Mathematics Teaching As a Site for Teacher Education." The First Annual Freudenthal Memorial Conference, Utrecht, The Netherlands, September 15, 1995
- "Using Technology To Prepare Effective And Responsible Educators: The Case Of Interactive Multimedia In Mathematics Methods Courses." AERA, April 22, 1995 (with Angie Eshelman)
- "Where is the 'Teaching for Understanding' in Collaborative Group Work in Mathematics Classrooms?" Pew Forum, July 30, 1994.
- "Tools for the Multimedia Investigation of Teaching: The Case of the Investigator's Working Environment." National Design Consortium in Education, Northwestern University, October, 1994.

- "The Teacher's Role in Classroom Communication. "Communication for Understanding in Classrooms Conference, Wisconsin Center for Educational Research, Madison, WI, September 27, 1994.
- "Personal Disagreement and Mathematical Argument in the Fifth Grade." American Educational Research Association, New Orleans, LA, April 4, 1994 (prepared with research assistants Peggy Rittenhouse and Carol Crumbaugh).
- "Doing Problems and Teaching Content." Plenary Address, Canadian Mathematical Society, Ottawa, Canada, December 19, 1994.
- "Cases of Teaching Mathematics for Understanding." Project Zero Spencer Project Symposium, Harvard University, Cambridge, MA, October 8, 1994.
- "Using Multimedia Technology to Support a New Pedagogy of Teacher Education." Invited Address, American Educational Research Association, Atlanta, GA, April 15, 1994.
- "Interactive Multimedia Investigation as an Approach to Research in Mathematics Education." Research Presession, National Council of Teachers of Mathematics, Seattle, WA, March 31, 1993.
- "The Collaborative Construction of The Mathematics Curriculum Using Teacher Constructed Problems." Plenary Address, 7th International Congress on Mathematics Education, Quebec, Canada, August 22, 1992.
- "Using Multimedia Information to Construct Knowledge about Teaching." Colloquium, School of Education, University of Delaware, May 14, 1992.
- "Where is the Curriculum in Problem Driven Teaching?" Colloquium, Science and Mathematics Education Division, Graduate School of Education, University of California at Berkeley, February 10, 1992.
- "Covering the curriculum, one problem at a time." (Research Interpretation Session) National Council of Teachers of Mathematics Annual National Conference, New Orleans, April 18, 1991.
- "Using hypermedia to investigate and construct knowledge about mathematics teaching and learning." Symposium on Using Multimedia in Preservice Mathematics Teacher Preparation, American Educational Research Association Annual Meeting, Chicago, April 6, 1991.
- "Knowing and telling about teaching." Symposium on Teacher Research and Research on Teaching: Perspectives and Paradoxes, American Educational Research Association Annual Meeting, Chicago, April 4, 1991.
- "Learning and teaching about teaching and learning." (Invited Address) Division C, American Educational Research Association Annual Meeting, Chicago, April 4, 1991.
- "Doing mathematics, learning mathematics, and teaching mathematics: What might be the connection?" Seminaire sur la Representation, Centre Interdisciplinaire de Recherches sur L'Apprentisage et Le Developpement en Education, Universite du Quebec a Montreal, Montreal, Quebec, November 16, 1990.
- "Combining the roles of teacher, teacher educator, and researcher on teaching." Faculty Colloquium Series, Graduate School of Education, University of Pennsylvania, Philadelphia, October 23, 1990.

- "A conception of mathematics teaching and learning in classrooms and a model of research on teaching." US-USSR Symposium on Educational Reform, National Academy of Education, Princeton, October 17, 1990.
- "Practices and problems in teaching authentic mathematics in school." Plenary address, International Symposium on Effective and Responsible Teaching, Pedagogical Institute, University of Fribourg, Fribourg, Switzerland, September, 1990.
- "Using hypermedia to appreciate the work of teaching." National Conference on the Role of Case Methods in Teacher Education, Commonwealth Center for the Education of Teachers, Charlottesville, VA, June, 1990.
- "Students' interpretations of mathematical problems in small group settings." Interaction Analysis Laboratory, Institute for Research on Learning, Palo Alto, CA, December, 1989.
- "Connecting children's thinking with mathematical understanding." Annual Asilomar Conference, California Mathematics Council, Monterey, CA, December, 1989.
- "Integrating teaching, research, and teacher education." Dean's Colloquium Series, School of Education, University of Michigan, November, 1989.
- "Intentional learning, school tasks, and mathematical knowing." Colloquium, Center for Applied Cognitive Science, University of Toronto, October, 1989.
- "Knowing and telling about teaching." Benton Center Colloquium Series, University of Chicago, May, 1989.
- "Learning about teaching mathematics for understanding by doing it." Second Annual Research Institute, Mathematics and Science Education Center, University of North Carolina and North Carolina State University, May, 1989.
- "Mathematics as a context for teaching." Content as Context Conference, Center for Research on the Context of Secondary School Teaching, Stanford University, February, 1989.
- "Teaching that supports a culture of inquiry." Second annual conference on Cognition and Education, Institute for Research on Learning, Palo Alto, California, February, 1989.
- "Teaching mathematics for understanding and understanding mathematics teaching in schools." Dean's Colloquium Series, Stanford School of Education, January, 1989.
- "What is entailed in teaching mathematics for understanding?" Colloquium Series, Department Task Force for the Reorganization of Teacher Education, College of Education, Michigan State University, January, 1989.
- "The teacher's role in reinventing the meaning of mathematical knowing in the classroom." Keynote Address, Tenth Annual Meeting, North American Chapter of the International Group for the Psychology of Mathematics Education, November, 1988.
- "Connecting inventions with conventions." Working Group on Early Childhood Education, International Congress on Mathematics Education, Budapest, Hungary, July, 1989.
- "What is teaching mathematics for understanding." First Wisconsin Symposium on Research on Teaching and Learning Mathematics, National Center for Research on Education in the Mathematical Sciences, Madison, WI, May, 1988.

- "Acquiring practicable knowledge in a highly structured system: The case of New South Wales." Colloquium Series, National Center for Research on Teacher Education, East Lansing, MI, May, 1988.
- "Cognition in mathematical practice: A response to Jean Lave." Invited symposium, Mathematics Education Special Interest Group, American Educational Research Association, New Orleans, LA, April, 1988.
- "School-university collaboration in developing mathematical pedagogy." American Educational Research Association, New Orleans, LA, April, 1988.
- "The dilemmas in teaching girls mathematics." Girls and Math Project, National Curriculum Development Centre; Canberra, Australia, February, 1988.
- "Using television to set a context for mathematical problem solving and computer software use." National Council of Teachers of Mathematics, Northeastern Regional Conference, Long Island, NY, December, 1987.
- "Imagining an ideal that is also possible." Invited address to Conference on the Teaching of Mathematics: Issues for Today and Tomorrow, jointly sponsored by the Mathematical Sciences Education Board of the National Research Council and the Center for Academic Interinstitutional Programs of the University of California at Los Angeles, October 17, 1987.
- "Learning about ratio and proportion: A response to Kathleen Hart." National Council of Teachers of Mathematics Research Agenda Conference on Middle School Number Concepts, Northern Illinois University, DeKalb, IL, May, 1987.
- "Attending to students' thinking in math classes: Teacher's perspectives." Invited Symposium, Division C, American Educational Research Association, Washington, DC, April, 1987.
- "Educational researchers, classroom teachers, and teacher educators: Defining and establishing their relationships." American Educational Research Association, Washington, DC, April, 1987.
- "Integrating mathematical and archaeological exploration using <u>Maya Math</u> software." Mathematics, Science and Technology Teacher Education Annual Conference, Bank Street College, New York, October, 1986.
- "Improving teacher quality in science and mathematics education: What can research on teacher education tell us?" American Educational Research Association, San Francisco, CA, April, 1986.
- "Changes in teachers' perceptions of subject matter content and in their views of appropriate teaching techniques." American Educational Research Association, San Francisco, CA, April, 1986.
- "The future of curriculum and instruction in science, mathematics, and technology: Implications for teachers." Colloquium Series, Bank Street College of Education, New York, NY, February 14, 1986.
- "Mathematical misconceptions and the pedagogy of empowerment." Division of Mathematics, Science, and Technology Education Colloquium, University of California, Berkeley, CA, January 23, 1986.
- "What does it mean to know mathematics?" Curriculum and Instruction Research Center Colloquium, University of Illinois at Urbana-Champaign, Champaign, IL, October 10, 1985.

- "Teachers as teacher-educators." Joint Masters Degree Program of Lesley College and Buckingham, Browne and Nichols School, Teacher and Faculty Study Group, Cambridge, MA, September 4, 1985.
- "Research on teacher quality: A response to Murnane, Brophy and Lortie." National Research Council Conference on Teacher Quality in Science and Mathematics, Washington, DC, December 6, 1984.
- "Problem solving in the transition from arithmetic to algebra." Honors Teachers Workshop, Department of Mathematics, Michigan State University, East Lansing, MI, December 6, 1984.
- "Why American children are not learning mathematics." Center for Human Growth and Development, University of Michigan, Ann Arbor, MI, November 16, 1984.
- "Using a televised drama as the context for mathematics teaching and learning: <u>The Voyage of the Mimi</u>." Math Science Advisors Seminar, Children's Television Workshop, New York, NY, October 26, 1984.
- "Thinking about teaching and teaching about thinking: Implications for changing the curriculum." American Educational Research Association, New Orleans, LA, April 17, 1984.
- "How teachers manage to teach: The dilemmas of individual and social responsibilities." Education Department Colloquium, Interamerican University, St. Germain, Puerto Rico, January 25, 1982.
- "The caring authority: How teachers manage conflicting roles." Winter Colloquium, Institute for Research on Teaching, Michigan State University, East Lansing, MI, January 15, 1981.
- "The problems with teachers doing research in conventionally structured classrooms." Research Report, National Institute of Education, Washington, DC, March 23, 1980.